

Amendments to the Claims

Claims 1-8 (**Canceled**)

Claim 9 (**Previously Presented**) A substrate polishing apparatus comprising:

- a rotatable polishing table against which a substrate is pressed, said rotatable polishing table having a fluid chamber provided at a light emitting and light-receiving position thereof;

- a light-emitting and light-receiving device to emit measurement light from said rotatable polishing table to the substrate and to receive reflected light from the substrate;

- a first passage for a high flow rate, said first passage introducing a fluid, through which the measurement light and the reflected light pass, to said fluid chamber of said rotatable polishing table;

- a second passage for a low flow rate, said second passage being restricted as compared to said first passage for the high flow rate which introduces the fluid to said fluid chamber;

- a rotational angle sensor for detecting an angular position of said rotatable polishing table in a rotation direction of said rotatable polishing table; and

- a switching unit for switching into which of said first and second passages the fluid is introduced based on a detection signal of said rotational angle sensor.

Claims 10-20 (**Canceled**)

Claim 21 (**Previously Presented**) A substrate polishing apparatus comprising:

- a rotatable polishing table against which a substrate is pressed, said rotatable polishing table having a fluid chamber at a light-emitting and light receiving position thereof;

- a light-emitting and light-receiving device to emit measurement light from said rotatable polishing table to the substrate and to receive reflected light from the substrate for measuring a film formed on the substrate;

- a fluid supply passage for supplying a fluid for measurement to said fluid chamber of said rotatable polishing table, the measurement light and the reflected light passing through the fluid for measurement;

a rotational angle sensor for detecting an angular position of said rotatable polishing table in a rotational direction of said rotatable polishing table; and

a fluid supply control device for controlling supply of the fluid for measurement to said fluid chamber according to a positional relationship between said fluid chamber and the substrate which is detected by said rotational angle sensor,

wherein said fluid supply passage includes a passage for a high flow rate and a passage for a low flow rate which are connected to said fluid chamber.

Claim 22 (**Canceled**)

Claim 23 (**Previously Presented**) The substrate polishing apparatus as recited in claim 9, wherein said first passage and said second passage are connected to said fluid chamber.

Claim 24 (**Previously Presented**) The substrate polishing apparatus as recited in claim 9, wherein the measurement light and the reflected light pass through the fluid for measurement along a direction parallel to a direction in which the fluid flows.